

CLAIMS

1. A fuel cell separator characterized by comprising:
a separator substrate made of metal which has at least one open portion through which a fluid can pass provided in a predetermined position; and
a film coating member that coats a predetermined area including the open portion of the separator substrate, wherein a portion of the film coating member that corresponds to at least a peripheral edge portion of the open portion is adhesion treated.
2. The fuel cell separator according to claim 1, characterized in that the separator substrate is provided with a front surface and a back surface; a pair of the film coating members are provided on the front and back surfaces, and the portion of the pair of film coating members that corresponds to at least the peripheral edge portion of the open portion is adhesion treated.
3. The fuel cell separator according to claim 1 or 2, characterized in that the adhesion treatment is at least one treatment selected from the group consisting of heat welding, high-frequency welding, ultrasonic welding, and adhesion by an adhesive.
4. The fuel cell separator according to any one of claims 1 to 3, characterized in that the film coating member is made from at least one material selected from the group consisting of resin material and elastomer material.
5. The fuel cell separator according to any one of claims 1 to 4, characterized in that the separator substrate is made from one or more materials selected from the group consisting of SUS310, SUS304, SUS316, and titanium.
6. The fuel cell separator according to any one of claims 1 to 5, characterized in that the separator substrate is surface treated with at least one metal selected from the

group consisting of gold and chrome.

7. A manufacturing method of the fuel cell separator according to any one of claims 1 to 6, characterized by comprising the step of:

adhesion treating a portion of the film coating member that corresponds to at least a peripheral edge portion of the open portion.

8. The manufacturing method of a fuel cell separator according to claim 7, characterized by including a thermo-compression process in the adhesion treatment, in which a press temperature is 150 to 250°C, a press pressure is 20 to 200kgf/cm², and a press time is 0.2 to 20 minutes.

9. A fuel cell comprising:

a plurality of the fuel cell separators according to any one of claims 1 to 6.

10. A vehicle comprising:

the fuel cell according to claim 9.